All Payer All Claims Application for Limited Data File
APAC-3

OHA DRTS: 5545_Evaluate_Outcomes_Impacts_Patient_Center_Care_Li

This application is used in conjunction with the APAC-2 submitted. If any corrections to information submitted on the APAC-2 are required, please note the changes below (as relevant) and in the email to which this application will be attached.

PROJECT INFORMATION

Project Title: Evaluate the outcomes and impacts of patient-centered care in Oregon

Principal Investigator: Tao Li

Title of Principal Investigator: Assistant Professor

Organization: Oregon State University

Address: 458 Waldo Hall, 2250 SW Jefferson Way

City: Corvallis   State: Oregon   Zip Code: 97330

Telephone: (541) 737-0952

Email: tao.li2@oregonstate.edu

Application Date: 6/2/21

SECTION 1: PROJECT STAFF

1.1 Project Staff: Please list any staff in addition to the principal investigator who will have direct access to the data. This must include any contractors or other third-parties with access to the data.

Name	Role
Email	

Name	Role
Email	

Name	Role
Email	

Name   Role

Email

Name   Role

Email

Attach additional sheets as needed.

1.2 Technical Staff: Please list any additional staff who will be maintaining the data file(s) or otherwise assisting in the transfer or receipt of the data files. <u>Files will not be transferred to anyone who is not listed on this application as either project staff or technical staff</u>.

Name   Mark Hammerschmith   Role   Server Administrator

Email   Mark.Hammerschmith@oregonstate.edu

Name   Chifundo Lemani   Role   CPHHS IT-Coordinator

Email   Chifundo.Lemani@oregonstate.edu

SECTION 2: PROJECT SUMMARY

2.1 Project Purpose: Briefly describe the purpose of the project and how it meets the APAC use as research, public health surveillance activities or health care operations. A more detailed project description including background, methodology and analytic plan that supports the APAC data options and data elements selected for your project may be submitted with this application.

The main goal of this research project is to study whether and to what extent improving patient-centered care may improve the quality, affordability, and efficiency of health care in Oregon. The main data source will be APAC linked to Oregon Death Record Data, and I plan to conduct longitudinal analyses and economic evaluations on these data across years.

2.2 Research Questions: What are the key research questions or hypotheses of the project? If this project is research and has been approved by an Institutional Review Board (IRB), the research questions must align with the IRB approval documentation.

The main research question of this project is whether improving patient-centered care may improve the quality, affordability, and efficiency of health care in Oregon. I posit that improving patient-centered care is associated with higher quality, lower cost, and better efficiency of health care in Oregon. In addition, I am particularly interested in whether improving patient-centered care can improve healthcare quality and efficiency for minority groups. I posit that a better patient-centered care can improve health equity. I expect that my research findings will inform evidence-based action plans to benefit patients, providers, and other stakeholders in the community.

2.3 Products or Reports: Describe the intended product or report that will be derived from the requested data and how this product will be used.

The intended products for this research include peer-review publications, conference presentations, technical and media report, and future funding opportunities.

2.4 Project Timeline: What is the timeline for the project?

- a. Anticipated Start Date: 7/1/21
- b. Anticipated Publication/Release Date: 7/1/22
- c. Anticipated End Date: 6/30/26

2.5 Data files may not be released or reused beyond the terms of the data use agreement resulting from this application regardless of funding source or other obligations of the Principal Investigator, organization or research team.

- ☒ I understand this limitation and agree that data files or work products will not be shared at less than an aggregated, de-identified level.

- ☐ I understand this limitation and request approval to share data files or work products at a potentially re-identifiable level as follows:

SECTION 3: DATA REQUEST

3.1 Purpose of the Data Request:

a. Listed below are the purposes for which OHA may share APAC data. Please choose the category in which your project falls (*choose only one*).

- ☑ Research (refer to 45 CFR 164.501 for definition)
- ☐ Public health activities (refer to 45 CFR 164.512(b) for definition)
- ☐ Health care operations (refer to 45 CFR 164.501 for definition)

    Covered entity?   ☐ Yes   ☐ No

    (refer to 45 CFR 160.103 for definitions related to covered entities)

- ☐ Treatment of patient by health care provider (refer to 45 CFR 164.506 (c)(2) for definition)

    Covered entity?   ☐ Yes   ☐ No

- ☐ Payment activities performed by covered entity or health care provider (refer to 45 CFR 164.506 (c)(3) for definition)

    Covered entity?   ☐ Yes   ☐ No

- ☐ Work done on OHA's behalf by a Business Associate (refer to 45 CFR 160.103 for definition).

b. Describe how the project falls into the category chosen above.

I propose this research project as a secondary data analyses study, aiming to examine the impacts of patient-centered care on quality, affordability, and efficiency of health care in Oregon. The intended products for this research include peer-review publications, conference presentations, technical and media report, and future funding opportunities.

3.2 Direct identifiers. What level of data identifiers are you requesting (*choose only one*)? Reference the Data Elements Workbook for the categorization of data elements.

- ☐ De-identified (as outlined in 45 CFR 164.514(e)) protected health information
- ☑ Limited, potentially re-identifiable data elements
- ☐ Restricted direct identifiers (member name, address, date of birth, etc.) *Please note:* Direct identifiers are only released under special circumstances that comply with HIPAA requirements, and will require specific approvals, such as Institutional Review Board (IRB) approval, patient consent and/or review by the Department of Justice.

3.3 Human Subjects Research: Institutional Review Board (IRB) protocol and approval are required for most research requests for limited data elements and are mandatory for research requests for restricted data elements. Not obtaining IRB approval or waiver in advance may delay approval of the data request. **Also, if the research questions reported in 2.2 of this application do not match the submission and IRB approval received, the application will be denied.**

The IRB application should indicate that APAC data contains sensitive personal health information and is subject to HIPAA regulations.

   a. Does your project have IRB approval for human subjects research?
      ☑ Yes   ☐ Not applicable (project is not research on human subjects)

   If yes, include the IRB application and approval memo with the submission of the APAC-3 and complete parts b-e below.
      ☑ IRB application and approval memo are attached.

   b. Describe how this application is within the authority of the approving IRB.

The PI who is requesting data is an employee of OSU, therefore OSU is engaged in the research and the OSU IRB has jurisdiction over all human subjects research that engages OSU.

   c. Describe why the project could not be practicably conducted without a waiver of individual authorization (a waiver of individual authorization is provided by the IRB in cases in which the researcher does not need written authorization from participants to use their PHI):

In this research project, we will conduct secondary data analysis on limited dataset claims from the Oregon's All Payer All Claims (APAC) dataset linked to death data. As the data removes names, contact information, and other direct identifiers, it would be impossible to obtain consent from everyone in the data set.

   d. On what date does the IRB approval expire?   5/26/26

SECTION 4: DATA ELEMENTS

Refer to the APAC Data Dictionary for detailed information about the data elements. OHA will only provide the minimum necessary data required for the project as represented in the research questions, protocol and IRB approval. In compliance with HIPAA regulations, you will only receive data elements that are adequately justified.

4.1 Data Element Workbook: Complete the Data Element Workbook. Complete the data request options and the data elements worksheets.

☑ Data Element Workbook completed and attached, including justifications for each element requested

4.2 Minimum Necessary Requirement: Please explain why the requested APAC options and data elements are the minimum necessary required for the project. The justification should be specific to this project and more than 'potential confounding variable'. Attach additional sheets as needed.

As the main goal of this research project, all the data elements requested are important and necessary to is to study whether and to what extent improving patient-centered care may improve the quality, affordability, and efficiency of health care in Oregon. Detail justification for data element requested are submitted with the data element workbook.

SECTION 5: DATA MANAGEMENT & SECURITY

5.1 Data Reporting: APAC data or findings may not be disclosed in a way that can be used to re-identify an individual. Data with small numbers – defined as values of 30 or less (n≤30) or subpopulations of 50 or fewer individuals (n≤50) – cannot be displayed in findings or outputs derived from APAC data. Please describe the techniques you will use to prevent re-identification when findings or outputs result in small numbers or subgroups (e.g. aggregation, cell suppression, generalization, or perturbation).

Potential technique to be used includes re-grouping subgroups of small numbers or excluding such small subgroups from the findings.

5.2 Data Linkage: OHA seeks to ensure that APAC data cannot be re-identified if it is linked or combined with data from other sources. Requesters are strongly encouraged to consult with Health Analytics about linking APAC data with other data prior to submitting a data request. OHA prefers to conduct APAC data linking in-house and share only encrypted identifiers with data requesters

 a. Does this project require linking to another data source?
  ☑ Yes ☐ No
  If yes, please complete parts b-d below.

 b. At what level will data be linked?
  ☐ Aggregate ☐ Facility ☑ Person

 c. If required to link
  ☐ Authorized to provide data for linking at OHA
  ☐ Not authorized to provide data for linking at OHA
  ☑ Unknown

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d. Describe and justify all necessary linkages, including the key fields in each data set, how they will be linked, the software proposed to perform the linkage and why it is necessary.

A main goal of this research project is to examine whether improving patient-centered care may improve the quality and outcomes of health care in Oregon, and death is certainly one of the most important healthcare outcomes. The "Enhanced APAC data", which links APAC and Oregon Death Data, provides a unique opportunity for me to more comprehensively examine the healthcare outcome and quality.

Per the instruction from the OHA, I submit requests to the APAC program (Part A) and CHS (Part B) concurrently, and APAC and CHS will coordinate approval. Once approved, the OHA will provide me with the linked data.

In addition the "Enhanced APAC data", I also expect to link it with other area-level data such as Area Health Resources Files and Rural-Urban Community Area Codes at the fips, zipcodes, and urban/rural levels, in order to better control for area-level characteristics and social determinants of health.

e. Describe in detail the steps will you take to prevent re-identification of linked data.

I do not request sensitive elements from the APAC data, and I do not request confidential elements from the death data. Once approved, the OHA will provide me with the linked data. Other data such as as Area Health Resources Files and Rural-Urban Community Area Codes will be linked at the area-levels, and will be used to control for area-level characteristics. Other potential techniques to prevent re-identification of linked data include re-grouping subgroups of small numbers or excluding such small subgroups from the findings.

5.3 Data Security:

☑ a. Attach a detailed description of your plans to manage access to the APAC data, personnel safeguards, technical and physical safeguards and administrative safeguards. Please describe and ensure the following:

- Designation of a single individual as the custodian of APAC data, either the Principal Investigator or staff listed in Section 1 of this

application, who is responsible for oversight of APAC data including reporting any breaches to OHA and ensuring the data are properly destroyed upon project completion

- A security risk management plan applicable to APAC data
- Compliance with HIPAA and the HITECH Act
- Ensure that all parties accessing APAC data are listed on the data use agreement and agree to the same terms and conditions for securing and protecting APAC data
- Procedures to restrict APAC data access to only those individuals listed on the data use agreement
- Ensure training for personnel on how to properly manage protected health information and electronic health information has occurred
- Signed agreements for organizational security and privacy policies
- User account controls i.e., password protections, maximum failed login attempts, lockout periods after idle time, user audit logs, etc.
- Electronic device protections i.e., anti-virus or anti-malware software, firewalls, and network encryption
- Procedures for restricting remote access to APAC data
- Procedures for storing hard copy data
- Protection of derivatives of APAC data at the identifiable level
- If applicable, procedures for handling direct identifiers, including storing identifiers separately from other APAC data
- Procedure for identifying, reporting and remedying any data breach

b. Record level or derivative data that can be reidentified must be destroyed within 30 days of the end of the data use agreement, in a manner that renders it unusable, unreadable or indecipherable. What are your plans for destruction of the dataset and any potentially identifiable elements of the data once the data use agreement has expired?

The technical staff will use DoD Compliant data erasure software called Erase that will be used to destroy the data completely.

SECTION 6: COST OF DATA

APAC staff will review your request and estimate the number of hours required to produce and validate the data. The cost of the data set, at $63 per hour of staff time, will then be determined. Payment must be received before the data will be provided. An invoice is available to facilitate payment. OHA's W-9 is available on request.

SECTION 7: CHECKLIST AND SIGNATURE

7.1 Checklist: Please indicate that the following are completed:

- ☑ I acknowledge that payment will not be refunded if OHA fulfills the data request, but the receiving entity does not have the capability to import or analyze the data

- ☑ All questions are answered completely

- ☑ Data Element Workbook is attached to email or printed application (data options and data element worksheets completed)

- ☑ IRB approval memo is attached to email or printed application, if applicable

- ☑ Data privacy and security policies for the requesting organization, and any third-party organizations are attached to the email or printed application

7.2 Signature: The individual signing below has the authority to complete this application and sign on behalf of the organization identified in Section 1. By signing below, the individual attests that all information contained within this data Request Application is true and correct.

Signature   **Tao Li**   Digitally signed by Tao Li
Date: 2021.06.02 12:01:50 -07'00'   Date   6/2/21

Printed name   Tao Li

Title   Assistant Professor

Return the completed form with required attachments to APAC.Admin@state.or.us.

Completed forms may also be printed and mailed to: 421 SW Oak St., Suite 850 – APAC
Portland, OR 97204

Tao Li, MD., Ph.D.
Evaluate the outcomes and impacts of patient-centered care in Oregon

Background and introduction

The U.S. healthcare system has been criticized for its complexity and fragmented nature.[1] The critical examples are patients' fragmented visit pattern and lack of coordination of care among providers across various settings. A previous study estimated that Medicare patients saw a median of 7 physicians annually.[1] The fragmented visit pattern may negatively impact both the patient and the provider in various aspects. It may jeopardize healthcare outcome and patient experience due to poor transitions of care and lack of information integration.[2,3] This may also lead to unstable responsibility assignment for providers, which limits a provider's ability to improve quality of care and reduces the provider's financial incentives under pay-for-performance.[1] Therefore, the fragmented visit pattern and the lack of coordination of care can create major barriers to improving healthcare outcomes and patient satisfaction at a lower cost, i.e. the "Triple Aims". [4]

The patient-centered care features coordinated care directed by a personal physician, and can improve an ongoing patient-physician interaction and enhance shared decisions makings. A longitudinal relationship between a patient and a physician "fosters improved communication, trust, and a sustained sense of responsibility." [5] The knowledge about a patient's history, preference, values, and other psychosocial attributes are accumulated by a physician through the ongoing patient- physician relationship.[5] Physicians' knowledge about patients are mostly non-transferable, but important to shared decision making, quality of care, and patient trust.[5] It is expected that greater trust and familiarity between physicians and patients stemming from a longitudinal physician-patient relationships will improve quality of care, and is particularly important for prevention and management for chronic medical conditions. [6-9]

However, the evidence from empirical study on the impacts of physician-patient relationship is still mixed [10]. A previous study by Nyweide et al [11] found that an ongoing physician-patient relationship could reduce the rate of preventable hospitalizations among Medicare fee-for-service beneficiaries. Kemp et al [12] also suggested that continuity of care through pregnancy was associated with a higher rate of unassisted vaginal births and better health statue postnatally. However, not all previous research found a beneficial impacts on the quality of care and health outcomes. A more recent study found a higher continuity of care score may be associated with a higher rate of hospitalizations due to ambulatory care sensitive conditions [13]. Other studies found insignificant or very minor impacts of continuity of care [14-16]. I recently led a publication to investigate how improving physician-patient relationship may influence guideline concordance of cervical cancer screening.[10] However, due to data limitation, my previous study only included women of reproductive age (15-44 years) who were enrolled in Oregon Medicaid. This limits the generalizability of conclusions to a broader population or to other healthcare settings. In sum, there is still lack of solid and clear evidence from empirical study on the impacts of the patient-centered care led by personal physicians.

Therefore, in this research project I aim to address this important knowledge gap regarding patient-center care led by personal physicians. The short-term objective of my proposal is to examine the impacts of on-going patient-provider relationship on healthcare quality, utilization, and efficiency. In the long term, my research findings will inform evidence-based policy to prioritize and incentivize healthcare delivery innovations to improve the patient-centered, coordinated care. Specifically, I seek to answer the following research questions:

RQ1: Is long-term patient-provider relationship associated with reduced healthcare utilization and cost?

RQ2: Is long-term patient-provider relationship associated with improved quality of care and outcome?

Specifically, I hypothesize that a long-term patient-provider relationship will relate to significantly lower healthcare utilization and expenditure, and will relate to significantly better quality of care and outcome. I expect that my research project will improve patient-centered care and help people and communities in Oregon achieve better health at a lower cost, which supports OHA's mission and aims.

Methods

Data

In this research project, I will use the Oregon All Payer All Claims (APAC) Data-linked with Oregon Death data as the main data sources. Operated by the Oregon Health Authority, the APAC dataset represents more than 90% of Oregon residents, and contains a broad spectrum of administrative data, such as medical claims, pharmacy claims, payment amounts, and provider information. [17] Therefore, this data will empower me to gain more generalizable findings across medical settings to improve patient-provider relationships and healthcare value in Oregon. *Moreover, my current research experience using the APAC datasets demonstrates my ability to successfully manage and conduct analyses using this dataset and produce publications.* I led two publications using the APAC datasets to analyze medical care expenditures and utilizations [18,19], which have been listed as publication examples on APAC website. [17]

In addition, the APAC data are now linked with death record data managed by the Oregon Center for Health Statistics.[17] In this proposed study, I plan to purchase the APAC-death record linked data from the Oregon Health Authority and the Oregon Center for Health Statistics. This enhanced-APAC data will provide me with a unique opportunity to measure death as one of the most important healthcare outcomes, and examine whether there is reduced mortality that is associated with ongoing patient-provider relationship. I also expect to link the enhanced-APAC data with other publicly available area-level data such as Area Health Resources Files [20] and Rural-Urban Community Area Codes [21]. This will allow me to better control for area-level characteristics and social determinants of health (e.g. education, employment, income, etc.).

As the provider-patient relationship is expected to have comprehensive impacts on multiple medical conditions, I plan to approach my research project in phases. I will prioritize those conditions that are expected to be better improved by on-going provider-patient relationship, from which the community will benefit more, and for which the evidence is more urgently needed. Therefore, in the present phase of this research project, I will focus on examining the impacts of patient-providers relationships on the following selected medical conditions, and I will request claims with the following diagnoses appear in any of the diagnosis fields (diagnosis codes are listed in data element workbook):

(1) Claims with diagnosis of pain, including nervous system pain and pain syndromes, headache, musculoskeletal pain, and low back pain;

(2) Claims with diagnosis of opioid-, sedative-, and stimulant-related disorders and

subsequent encounters.

Measures

Patient-provider relationship: As described above, a long-term patient-provider relationship, or

continuity of care, is the key feature of patient-centered care. In this study I will use unique

provider identifiers in the claims data to construct the continuity of care index as the main

measure of patient-provider relationship. The continuity of care index is commonly used to

characterize the dispersion of a patient's visit pattern by measuring the share of unique providers

seen by an individual patient [22-25]. Specifically, I will use the unique provider identifiers and

the counts of patients' visits to calculate a COC index. The COC index ranges from 0-1, with a

higher value meaning a higher share of a patient's visits accounted for by a unique physician. *We*

have successfully used this approach in previous publication to examine the impact of patient-

provider relationship on preventive care [10].

Healthcare utilization: By using the medical and pharmacy claims in the APAC data, I will

construct healthcare utilization measures to capture utilization of a range of healthcare services,

e.g. number of emergency department visits, number of physician office visits, number and days

of hospitalizations, number of prescription drugs. These measures are commonly used to capture

resources use across clinical settings. *We have successfully used the APAC data to analyze*

healthcare utilization in previous publication [19].

Healthcare expenditure: By using the medical and pharmacy claims in the APAC data, I will construct healthcare expenditure measures., such as payer payments, patient co-payment, patient co-insurance, and deductibles. I will also use Consumer Price Index to adjust dollar amounts across years to improve comparability. *We have successfully used the APAC data to analyze healthcare utilization in previous publication [18, 19]*

Healthcare quality and outcome: As in this present phase of research project I will focus on examining claims with diagnosis of selected conditions above, I plan to construct measure of quality as hospitalizations, emergency department visits, and complications due to these disorders, according to recent publications by Agency for Healthcare Research and Quality [26, 27]. The APAC-linked Death Record Data will also allow me to measure death related to these disorders as one of the most important healthcare outcome.

Other control variables: I will include a series of control variables, such as patient demographics (e.g. age, gender, insurance type) and provider demographics (e.g. age, gender). In addition to focusing on examining specific diagnoses as listed above, I will request all diagnoses fields for relevant claims in order to control for patients' health statues. I also expect to use zipcodes to link the data with other publicly available area-level data such as Area Health Resources Files [20] and Rural-Urban Community Area Codes [21], in order to better control for area-level characteristics and social determinants of health (e.g. education, employment, income, etc.).

Analytical strategy

The patient-centered care features a long-term patient-physician relationship. Therefore, I plan to create person-month and person-year panel data across a study period from 2011 – 2019. Two-part models may be used to accommodate the high level of skewness in the utilization and expenditure data, and two sets of coefficients will be yielded: one for the probability of any utilization and expenditures, and the other for the level of utilization and expenditures (conditional on any utilization and expenditures). Healthcare quality and outcomes can be measured as binary variables, for examples, coded as 1 if patients received cancer screening, or if patients experienced preventable hospitalizations. I will use longitudinal analyses as the major analytical models in this research. After calculating healthcare expenditures and healthcare quality and outcomes, I will also employ cost-effectiveness analysis to evaluate whether improving patient-provider relationship may improve the value of health care. I will use multiple software such as SAS, STATA, and TreeAge Pro to implement data management and statistical analyses. This proposed research project has been reviewed and approved by the Oregon State University Institutional Review Board.

References:

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14. Johnston KJ, Hockenberry JM. Are Two Heads Better Than One or Do Too Many Cooks Spoil the Broth? The Trade-Off between Physician Division of Labor and Patient Continuity of Care for Older Adults with Complex Chronic Conditions. *Health services research.* 2016;51(6):2176-2205. doi: 10.1111/1475-6773.12600

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18.   **Li T**, Norcross MF, Johnson ST, Koester MC. Cost-benefit of hiring athletic trainers in Oregon high schools from 2011 to 2014. *J Athl Train*. 2019 Feb; 54(2):165-169.

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Human Research Protection Program
& Institutional Review Board
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Oregon State University
Research Office

Date of Notification	May 27, 2021		
Notification Type	Approval Notice		
Submission Type	Initial Application	Study Number	IRB-2021-0942
Principal Investigator	Tao Li		
Study Team Members	Hammerschmith, Mark J; Lemani, Chifundo;		
Study Title	Evaluate the outcomes and impacts of patient-centered care in Oregon		
Review Level	Expedited		
Expedited Category	5		
Waiver(s)	Informed Consent and Parental Permission		
Risk Level for Adults	Minimal Risk		
Risk Level for Children	§46.404 Minimal Risk		
Funding Source	John C. Erkkila, M.D. Endowment For Health And Human Performance	Cayuse Number	21-1006

APPROVAL DATE: 05/27/2021   **EXPIRATION DATE:** 05/26/2026

A new application will be required in order to extend the study beyond this expiration date.

Comments:

The above referenced study was approved by the OSU Institutional Review Board (IRB). The IRB has determined that the protocol meets the minimum criteria for approval under the applicable regulations pertaining to human research protections. The Principal Investigator is responsible for ensuring compliance with any additional applicable laws, University or site-specific policies, and sponsor requirements.

Study design and scientific merit have been evaluated to the extent required to determine that the regulatory criteria for approval have been met [45CFR46.111(a)(1)(i), 45CFR46.111(a)(2)].

Principal Investigator responsibilities:

➢ Keep study team members informed of the status of the research.
➢ Obtain IRB approval for project revisions <u>prior</u> to implementing changes.
➢ Report all unanticipated problems involving risks to participants or others within three calendar days.
➢ Use only valid consent document(s).

5.3 Data Security:

Project Title: Evaluate the outcomes and impacts of patient-centered care in Oregon

- **Attachment: Access to APAC data, personnel, technical and physical, and administrative safeguards.**

This study will use the College of Public Health and Human Sciences (CPHHS)'s secure server also known as the CPHHS-Stats server. The data security and storage data protocols used on this server are the same ones being used by other Oregon State University (OSU) studies that use data provided by Oregon Health Authority (OHA), including Medicaid claims and eligibility data and Hospital Discharge Data. The existence of these security features on the server will further minimize risks of confidentiality and privacy breach.

The server, professionally hosted and managed by the OSU's UIT Infrastructure Services server support team, is provided to CPHHS staff and faculty allowing them to have a separate space for the storing, processing, and reviewing of research data. In addition, Statistical data analyses will also be performed on this server. Installed on the server is a Windows Server 2016 operating system which also includes a Windows Defender Antivirus program that actively protects the server against known viruses and malware whose definitions are regularly updated through Windows update. The server sits in a firewalled subnet, and only permitted inbound ports are approved for remote desktop and file sharing access.

The server is a terminal server, and users must originate in permitted IP address ranges, or be connected through Oregon State University's VPN client for off-campus access. Local workstations accessing the server sit behind the firewall and will have built-in Windows Defender Firewall, which is a host-based firewall that is included with the operating system. In addition, all authorized personnel involved in this research study will use OSU computing devices that are fully patched with current anti-virus software with current virus definitions coupled with 256-bit strong encryption technology. All systems meet the Baseline Standards of Care for handling Protected Information as outlined in the OSU Information Security Manual.

The APAC data files will be electronically transmitted to the CPHHS-Stats server via secure file transfer protocols. Access to APAC data on the server will be restricted to users (personnel) authorized for this study which will include OSU investigators and staff who sign a Data Use Agreement approved by OHA and will not be disclosed to additional parties without prior IRB approval specifically authorizing the disclosure. All investigators involved in the study have documented completion of Human Subjects Training through Oregon State University. The confidentiality of all data sources will be protected as mandated by state and federal laws and regulations. When generating reports, all data will be reported in aggregate, with no personal identifying information.

In this study, there will be no direct identifiers of patients/members (names, addresses, date of birth, social security numbers, etc.) included in the datasets received by OSU. The data will include provider information, such as provider name, address, and National Provider Identifier. OHA lists these provider data as "de-identified". As OHA indicates, the provider information is

not protected in the same way as member/patient information. The provider identifiers are available for request at a lower standard of need, and the request is very likely to be approved. The study will use requested "De-identified" and "Limited" variables and will not use any "Sensitive" variables. For the death data, this study has requested variables in the "Basic" tab, and not variables in the "Confidential" tab.

External drive security plan:
All research data stored on external backup drive will be strongly encrypted making data unreadable to unauthorized parties. Only the authorized personnel or research investigators approved by the IRB for the protocol may have access to the information, and make the data readable again. BitLocker, a standard encryption program of Microsoft Windows Operating Systems which uses a 256-bit Advanced Encryption Standard (AES) algorithm, will be used to protect the external backup drive containing the research data.

Research Data Backups:
Network data backups are provided by the UIT Infrastructure team in agreement with the owner of the research data. The owner of the research data may ask for any other backup policy that will fit his/her data structure depending on the location of the backup. In addition to standard network backup policies, data owners are provided with other backup options that are always available on request.

- **Plan to Destroy Expired once the Data Use Agreement has expired**

CPPHS-Stats uses DoD Compliant data erasure software called Erase that will be used to destroy the data completely. When the data use agreement is about to expire, the plan is to destroy all record level or derivative data within 30 days of the end of the data use agreement, in a manner that renders it unusable, unreadable or indecipherable.

Please answer each of the following questions about APAC data request options:

Please indicate the year(s) of data requested	2011	2012	2013	2014	2015	2016	2017	2018	2019
	x	x	x	x	x	x	x	x	x

Do you want out-of-state people included?	Yes	No
	x	

Denied claims are not part of the APAC production dataset and are provided as a separate data set. Do you want denied claims?	Yes	No
	x	

Do you want orphan claims included?	Yes	No
	x	

Do you want coordination of benefit claims included?	Yes	No
	x	

Do you want outlier COB claims flagged or excluded?	Flag	Exclude
	x	

Do you want self-insured data included?	Yes	No
	x	

Do you want PEBB and OEBB data included?	Yes	No
	x	

What payer types do you want?	Commercial	Medicaid	Medicare (commercial only)	CMS Medicare (Available to OHA only)
	x	x	x	

What medical claim types do you want?	All claims	Inpatient hospital	Emergency department	Outpatient	Ambulatory surgery	Ambulance	Transportation	Hospice	Skilled Nursing Facility	Substance Abuse claims (Available to OHA only)
	x	x	x	x	x	x	x	x	x	

Do you want pharmacy claims?	Yes	No
	x	

Do you want monthly eligibility data (insured/covered months by plan)?	Yes	No
	x	

Do you want member demographic data?	Yes	No
	x	

Do you want provider data?	Yes	No
	x	

Do you want claims and eligibility data for selected age groups only?	All ages	Exclude people 65 yrs and older	Specify age range:
	x		

Do you want to limit claims and eligibility data by gender?	Include all	Only females	Only males
	x		

Do you want to limit medical claims data to selected diagnoses?	No	Yes. List diagnosis codes
		Yes. Please find "diagnosis codes list" tab

Do you want to limit pharmacy data to selected NDC codes or therapeutic classes?	No	Yes. List NDC or therapeutic class codes
	x	

Are you requesting identifiable data?	No	Zip code	County	Address	Name	Month of birth	Date of birth	CMS reported date of death (Available to OHA only)
		x (used to link with			x (provi			

One payer reported the claim status for all of their claims as fee-for-service when most were encounter or managed care claims. Do you want the claim status changed to managed care?	Change to encounter	Do not change
	x	

Do you want APAC data linked to Oregon Center for Health Statitistics (CHS) Death Certificate data? You will need approval from both CHS and APAC and can submit requests concurrently https://www.oregon.gov/oha/PH/BIRTHDEATHCERTIFICATES/VITALSTATISTICS/Pages/Data-Use-Requests.aspx	Yes	No
	x	

Field requested	Data Element	Security Level	DSG Code	Description	Value	Data Type	Length	Code Lookup	Justification
x	uid	De-Identified		Unique identifier on the table, acts as primary key		Integer	19		Used to construct panel data
x	mc038_claim_status_cd	De-Identified	MC038	Claim status. P - Paid, D - Denied, C - CCO encounter, E - other	P, D, C, E	Varchar	2		Important to accurately analyze medical untilication and expenditures.
x	mc059_service_start_dt	De-Identified	MC059	Date services to patient rendered	YYYYMMDD	Date	10		Used to measure length of services
x	mc060_service_end_dt	De-Identified	MC060	Date services for patient ended	YYYYMMDD	Date	10		Used to measure length of services
x	dw_claim_id	De-Identified		A unique medical claim identifier		Integer	19		Important to calculate number of claims and link claims.
x	mc005_line_no	De-Identified	MC005	Line number for this service. The line counter begins with 1 and is incremented by 1 for each additional service line of a claim.		Integer	19		Important to accurately analyze line items.
x	dw_person_id	De-Identified		A unique identifier associated with a unique individual across time, plans and payers		Integer	19		Important to construct panel data and implement longitudinal analaysis
x	dw_member_id	De-Identified		A unique identifier associated with a single plan and payer and assigned to all eligibility and claims records associated with a given individual for that plan/payer. An individual can have multiple member ids for a payer because they can have multiple plans.		Integer	19		Important to construct panel data and implement longitudinal analaysis
x	mc003_insurance_product_type_cd	De-Identified	MC003	A code that indicates an insurance coverage type		Varchar	6	Product Code	Analyze utilizations, expenditures, and outcomes by insurance types
x	claim_lob	De-Identified		Payer line of business: -99 = Inconsistent or Missing, 0 = Undefined, 1 = Medicare, 2= Medicaid, 3 = Commercial	-99, 0, 1,2,3	Integer	19	Product Code	Analyze utilizations, expenditures, and outcomes by payer types
x	self_insured_fl	De-Identified		Self Insured flag, 1=Y, 0=N	1, 0	Boolean	1		Important to control for insurance status
x	mc001_payer_type	De-Identified	MC001	Payer reported payer type codes:(C) Carrier, (D) Medicaid, (G) Other government agency, (P) Pharmacy benefits manager, (T) Third-party administrator, (U) Unlicensed entity	C, D, G, P, T, U	Varchar	2		Analyze utilizations, expenditures, and outcomes by payer types
x	mc018_admit_dt	De-Identified	MC018	Admission date	YYYYMMDD	Date	10		Important to construct panel data and implment longitudinal analysis.
x	mc203_admit_type_cd	De-Identified	MC203	Admission type:1 (Emergency), 2 (Urgent), 3 (Elective), 4 (Newborn), 5 (Trauma Center), 9 (missing)	1, 2, 3, 4, 5, 9	Varchar	20		Important to control for admission type, and analyze medical utilizations, expenditures, and outcomes by admission types.
x	mc204_admission_source_cd	De-Identified	MC204	Admission source		Varchar	20	https://resdac.org/cms-data/variables/claim-inpatient-admission-type-code-ffs	Important to analyze medical utilizations, expenditures, and outcomes by admission sources.
x	mc205_admit_diagnosis_cd	De-Identified	MC205	Admitting diagnosis. ICD-10 diagnosis code for dates of service beginning 10/01/2015, ICD-9 diagnosis code for dates of service before 10/01/2015		Varchar	24		Important to accurately analyze, compare, and interpret medical utilizations, expenditures, outcomes by medical conditions.
x	mc070_discharge_dt	De-Identified	MC070	Discharge date-required for inpatient hospitalization	YYYYMMDD	Date	10		Important to construct panel data and implment longitudinal analysis.
x	mc023_discharge_status_cd	De-Identified	MC023	Status for member discharged from a hospital		Varchar	20	https://resdac.org/cms-data/variables/patient-status	used to measure inpatient care outcomes
x	los	De-Identified		Length of stay of inpatient admission measured in days. Discharge Date - Admit Date. <1 is rounded to 1. Negative values set to NULL		Integer	19		Used to measure length of stays

	Field	Data Classification	Code	Description	Valid Values	Type	Length	Reference	Purpose
x	mc036_bill_type_cd	De-Identified	MC036	Type of bill on uniform billing form (UB)		Varchar	3	https://resdac.org/cms-data/variables/bill-type-code	Used to classifies the claim by the type of facility, type of care, and the billing record's sequence in the episode of care.
x	mc037_place_of_service_cd	De-Identified	MC037	Industry standard place of service code		Varchar	4	https://www.cms.gov/Medicare/Coding/place-of-service-codes/Place_of_Service_Code_Set	Important to analyze the utilization and expenditure by place of services. Also used to construct patient-provider relatrionship by place of services.
x	mc054_revenue_cd	De-Identified	MC054	Revenue code		Char	10	https://resdac.org/cms-data/variables/revenue-center-code-ffs	Important to accurately analyze, compare, and interpret medical utilizations and expenditures by cost centers (e.g., radiology, emergency room, pathology)
x	mc038a_cob_status	De-Identified	MC038	Coordination of benefit claim. 1=Y, 0=N	1, 0	Boolean	1		Used to control for benefit status.
x	orphan_fl	De-Identified		Identifies orphan claim with no corresponding eligibility for the date of service. 1=Y, 0=N	1, 0	Boolean	1		Used to remove void claims
x	mc041_principal_diagnosis_cd	De-Identified	MC041	Principal Diagnosis - ICD-10 Diagnosis code		Varchar	24	https://www.cms.gov/Medicare/Coding/ICD10/2019-ICD-10-CM.html	Important to analyze utilizations, expenditures, and outcomes by medical conditions. Also used to control for patient's general health statues.
x	Dx_Description	De-Identified		ICD diagnosis code description		Varchar	60	https://www.cms.gov/Medicare/Coding/ICD10/2019-ICD-10-CM.html	Important to analyze utilizations, expenditures, and outcomes by medical conditions. Also used to control for patient's general health statues.
x	Dx_Type	De-Identified		ICD diagnosis code type		Varchar	10	file:///C:/Users/OR0080344/Downloads/Diagnosis%20Type%20Definitions_EN%20(1).pdf	Important to analyze utilizations, expenditures, and outcomes by medical conditions. Also used to control for patient's general health statues.
x	mc041p_poa_p	De-Identified	MC041	Required present on admission flag for diagnosis 1: Yes, no, W (clinically undetermined), U (information not in record), diagnosis exempt from POA reporting (1), Null if not reported	Y, N, W, U, 1, Null	Varchar	2	https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HospitalAcqCond/Coding	Important to analyze utilizations, expenditures, and outcomes by medical conditions. Also used to control for patient's general health statues.
x	POA_Description	De-Identified		Present on admission description		Varchar	100	https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HospitalAcqCond/Coding	Important to analyze utilizations, expenditures, and outcomes by medical conditions. Also used to control for patient's general health statues.
x	mc042_other_diagnosis_2	De-Identified	MC042	Additional Diagnosis 2		Varchar	24	https://www.cms.gov/Medicare/Coding/ICD10/2019-ICD-10-CM.html	Important to analyze utilizations, expenditures, and outcomes by medical conditions. Also used to control for patient's general health statues.
x	mc042p_poa_2	De-Identified	MC042	Required POA flag for diagnosis 2 if populated - Y, N, W, U, 1, Null	Y, N, W, U, 1, Null	Varchar	2	https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HospitalAcqCond/Coding	Important to analyze utilizations, expenditures, and outcomes by medical conditions. Also used to control for patient's general health statues.

x	mc043_other_diagnosis_3	De-Identified	MC043	Additional Diagnosis 3		Varchar	24	https://www.cms.gov/Medicare/Coding/ICD10/2019-ICD-10-CM.html	Important to analyze utilizations, expenditures, and outcomes by medical conditions. Also used to control for patient's general health statues.
x	mc043p_poa_3	De-Identified	MC043	Required POA flag for diagnosis 3 if populated - Y, N, W, U, 1, Null	Y, N, W, U, 1, Null	Varchar	2	https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HospitalAcqCond/Coding	Important to analyze utilizations, expenditures, and outcomes by medical conditions. Also used to control for patient's general health statues.
x	mc044_other_diagnosis_4	De-Identified	MC044	Additional Diagnosis 4		Varchar	24	https://www.cms.gov/Medicare/Coding/ICD10/2019-ICD-10-CM.html	Important to analyze utilizations, expenditures, and outcomes by medical conditions. Also used to control for patient's general health statues.
x	mc044p_poa_4	De-Identified	MC044	Required POA flag for diagnosis 4 if populated - Y, N, W, U, 1, Null	Y, N, W, U, 1, Null	Varchar	2	https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HospitalAcqCond/Coding	Important to analyze utilizations, expenditures, and outcomes by medical conditions. Also used to control for patient's general health statues.
x	mc045_other_diagnosis_5	De-Identified	MC045	Additional Diagnosis 5		Varchar	24	https://www.cms.gov/Medicare/Coding/ICD10/2019-ICD-10-CM.html	Important to analyze utilizations, expenditures, and outcomes by medical conditions. Also used to control for patient's general health statues.
x	mc045p_poa_5	De-Identified	MC045	Required POA flag for diagnosis 5 if populated - Y, N, W, U, 1, Null	Y, N, W, U, 1, Null	Varchar	2	https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HospitalAcqCond/Coding	Important to analyze utilizations, expenditures, and outcomes by medical conditions. Also used to control for patient's general health statues.
x	mc046_other_diagnosis_6	De-Identified	MC046	Additional Diagnosis 6		Varchar	24	https://www.cms.gov/Medicare/Coding/ICD10/2019-ICD-10-CM.html	Important to analyze utilizations, expenditures, and outcomes by medical conditions. Also used to control for patient's general health statues.
x	mc046p_poa_6	De-Identified	MC046	Required POA flag for diagnosis 6 if populated - Y, N, W, U, 1, Null	Y, N, W, U, 1, Null	Varchar	2	https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HospitalAcqCond/Coding	Important to analyze utilizations, expenditures, and outcomes by medical conditions. Also used to control for patient's general health statues.
x	mc047_other_diagnosis_7	De-Identified	MC047	Additional Diagnosis 7		Varchar	24	https://www.cms.gov/Medicare/Coding/ICD10/2019-ICD-10-CM.html	Important to analyze utilizations, expenditures, and outcomes by medical conditions. Also used to control for patient's general health statues.
x	mc047p_poa_7	De-Identified	MC047	Required POA flag for diagnosis 7 if populated - Y, N, W, U, 1, Null	Y, N, W, U, 1, Null	Varchar	2	https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HospitalAcqCond/Coding	Important to analyze utilizations, expenditures, and outcomes by medical conditions. Also used to control for patient's general health statues.

x	mc048_other_diagnosis_8	De-Identified	MC048	Additional Diagnosis 8		Varchar	24	https://www.cms.gov/Medicare/Coding/ICD10/2019-ICD-10-CM.html	Important to analyze utilizations, expenditures, and outcomes by medical conditions. Also used to control for patient's general health statues.
x	mc048p_poa_8	De-Identified	MC048	Required POA flag for diagnosis 8 if populated - Y, N, W, U, 1, Null	Y, N, W, U, 1, Null	Varchar	2	https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HospitalAcqCond/Coding	Important to analyze utilizations, expenditures, and outcomes by medical conditions. Also used to control for patient's general health statues.
x	mc049_other_diagnosis_9	De-Identified	MC049	Additional Diagnosis 9		Varchar	24	https://www.cms.gov/Medicare/Coding/ICD10/2019-ICD-10-CM.html	Important to analyze utilizations, expenditures, and outcomes by medical conditions. Also used to control for patient's general health statues.
x	mc049p_poa_9	De-Identified	MC049	Required POA flag for diagnosis 9 if populated - Y, N, W, U, 1, Null	Y, N, W, U, 1, Null	Varchar	2	https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HospitalAcqCond/Coding	Important to analyze utilizations, expenditures, and outcomes by medical conditions. Also used to control for patient's general health statues.
x	mc050_other_diagnosis_10	De-Identified	MC050	Additional Diagnosis 10		Varchar	24	https://www.cms.gov/Medicare/Coding/ICD10/2019-ICD-10-CM.html	Important to analyze utilizations, expenditures, and outcomes by medical conditions. Also used to control for patient's general health statues.
x	mc050p_poa_10	De-Identified	MC050	Required POA flag for diagnosis 10 if populated - Y, N, W, U, 1, Null	Y, N, W, U, 1, Null	Varchar	2	https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HospitalAcqCond/Coding	Important to analyze utilizations, expenditures, and outcomes by medical conditions. Also used to control for patient's general health statues.
x	mc051_other_diagnosis_11	De-Identified	MC051	Additional Diagnosis 11		Varchar	24	https://www.cms.gov/Medicare/Coding/ICD10/2019-ICD-10-CM.html	Important to analyze utilizations, expenditures, and outcomes by medical conditions. Also used to control for patient's general health statues.
x	mc051p_poa_11	De-Identified	MC051	Required POA flag for diagnosis 11 if populated - Y, N, W, U, 1, Null	Y, N, W, U, 1, Null	Varchar	2	https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HospitalAcqCond/Coding	Important to analyze utilizations, expenditures, and outcomes by medical conditions. Also used to control for patient's general health statues.
x	mc052_other_diagnosis_12	De-Identified	MC052	Additional Diagnosis 12		Varchar	24	https://www.cms.gov/Medicare/Coding/ICD10/2019-ICD-10-CM.html	Important to analyze utilizations, expenditures, and outcomes by medical conditions. Also used to control for patient's general health statues.
x	mc052p_poa_12	De-Identified	MC052	Required POA flag for diagnosis 12 if populated - Y, N, W, U, 1, Null	Y, N, W, U, 1, Null	Varchar	2	https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HospitalAcqCond/Coding	Important to analyze utilizations, expenditures, and outcomes by medical conditions. Also used to control for patient's general health statues.

x	mc053_other_diagnosis_13	De-Identified	MC053	Additional Diagnosis 13		Varchar	24	https://www.cms.gov/Medicare/Coding/ICD10/2019-ICD-10-CM.html	Important to analyze utilizations, expenditures, and outcomes by medical conditions. Also used to control for patient's general health statues.
x	mc053p_poa_13	De-Identified	MC053	Required POA flag for diagnosis 13 if populated - Y, N, W, U, 1, Null	Y, N, W, U, 1, Null	Varchar	2	https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HospitalAcqCond/Coding	Important to analyze utilizations, expenditures, and outcomes by medical conditions. Also used to control for patient's general health statues.
x	mc055_procedure_cd	De-Identified	MC055	Current Procedural Terminology (CPT) code or Healthcare Common Procedure Coding System (HCPCS)		Varchar	20	https://www.cms.gov/Medicare/Coding/HCPCSReleaseCodeSets/Alpha-Numeric-HCPCS	Important to analyze utilizations, expenditures, and outcomes by procedures and medical services.
x	Px_Type	De-Identified		ICD procedure code type		Varchar	10	https://www.cms.gov/Medicare/Coding/ICD10/2019-ICD-10-CM.html	Important to analyze utilizations, expenditures, and outcomes by procedures and medical services.
x	mc056_procedure_modifier_1_cd	De-Identified	MC056	CPT or HCPCS modifier		Varchar	8	https://www.cms.gov/Medicare/Coding/HCPCSReleaseCodeSets/Alpha-Numeric-HCPCS	Important to analyze utilizations, expenditures, and outcomes by procedures and medical services.
x	mc057_procedure_modifier_2_cd	De-Identified	MC057	CPT or HCPCS modifier		Varchar	8	https://www.cms.gov/Medicare/Coding/HCPCSReleaseCodeSets/Alpha-Numeric-HCPCS	Important to analyze utilizations, expenditures, and outcomes by procedures and medical services.
x	mc057a_procedure_modifier_3_cd	De-Identified	MC057	CPT or HCPCS modifier		Varchar	8	https://www.cms.gov/Medicare/Coding/HCPCSReleaseCodeSets/Alpha-Numeric-HCPCS	Important to analyze utilizations, expenditures, and outcomes by procedures and medical services.
x	mc057b_procedure_modifier_4_cd	De-Identified	MC057	CPT or HCPCS modifier		Varchar	8	https://www.cms.gov/Medicare/Coding/HCPCSReleaseCodeSets/Alpha-Numeric-HCPCS	Important to analyze utilizations, expenditures, and outcomes by procedures and medical services.
x	mc058_icd_primary_procedure_cd	De-Identified	MC058	The main inpatient procedure ICD-10 code		Varchar	14	https://www.cms.gov/Medicare/Coding/ICD10/2019-ICD-10-CM.html	Important to analyze utilizations, expenditures, and outcomes by procedures and medical services.
x	mc058a_icd_procedure_2	De-Identified	MC058	Inpatient procedure ICD-10 code 2		Varchar	14	https://www.cms.gov/Medicare/Coding/ICD10/2019-ICD-10-CM.html	Important to analyze utilizations, expenditures, and outcomes by procedures and medical services.
x	mc058b_icd_procedure_3	De-Identified	MC058	Inpatient procedure ICD-10 code 3		Varchar	14	https://www.cms.gov/Medicare/Coding/ICD10/2019-ICD-10-CM.html	Important to analyze utilizations, expenditures, and outcomes by procedures and medical services.
x	mc058c_icd_procedure_4	De-Identified	MC058	Inpatient procedure ICD-10 code 4		Varchar	14	https://www.cms.gov/Medicare/Coding/ICD10/2019-ICD-10-CM.html	Important to analyze utilizations, expenditures, and outcomes by procedures and medical services.
x	mc058d_icd_procedure_5	De-Identified	MC058	Inpatient procedure ICD-10 code 5		Varchar	14	https://www.cms.gov/Medicare/Coding/ICD10/2019-ICD-10-CM.html	Important to analyze utilizations, expenditures, and outcomes by procedures and medical services.
x	mc058e_icd_procedure_6	De-Identified	MC058	Inpatient procedure ICD-10 code 6		Varchar	14	https://www.cms.gov/Medicare/Coding/ICD10/2019-ICD-10-CM.html	Important to analyze utilizations, expenditures, and outcomes by procedures and medical services.
x	mc058f_icd_procedure_7	De-Identified	MC058	Inpatient procedure ICD-10 code 7		Varchar	14	https://www.cms.gov/Medicare/Coding/ICD10/2019-ICD-10-CM.html	Important to analyze utilizations, expenditures, and outcomes by procedures and medical services.
x	mc058g_icd_procedure_8	De-Identified	MC058	Inpatient procedure ICD-10 code 8		Varchar	14	https://www.cms.gov/Medicare/Coding/ICD10/2019-ICD-10-CM.html	Important to analyze utilizations, expenditures, and outcomes by procedures and medical services.

	Field Name	Classification	Code	Description	Values	Type	Length	Reference	Purpose
x	mc058h_icd_procedure_9	De-Identified	MC058	Inpatient procedure ICD-10 code 9		Varchar	14	https://www.cms.gov/Medicare/Coding/ICD10/2019-ICD-10-CM.html	Important to analyze utilizations, expenditures, and outcomes by procedures and medical services.
x	mc058j_icd_procedure_10	De-Identified	MC058	Inpatient procedure ICD-10 code 10		Varchar	14	https://www.cms.gov/Medicare/Coding/ICD10/2019-ICD-10-CM.html	Important to analyze utilizations, expenditures, and outcomes by procedures and medical services.
x	mc058k_icd_procedure_11	De-Identified	MC058	Inpatient procedure ICD-10 code 11		Varchar	14	https://www.cms.gov/Medicare/Coding/ICD10/2019-ICD-10-CM.html	Important to analyze utilizations, expenditures, and outcomes by procedures and medical services.
x	mc058l_icd_procedure_12	De-Identified	MC058	Inpatient procedure ICD-10 code 12		Varchar	14	https://www.cms.gov/Medicare/Coding/ICD10/2019-ICD-10-CM.html	Important to analyze utilizations, expenditures, and outcomes by procedures and medical services.
x	mc058m_icd_procedure_13	De-Identified	MC058	Inpatient procedure ICD-10 code 13		Varchar	14	https://www.cms.gov/Medicare/Coding/ICD10/2019-ICD-10-CM.html	Important to analyze utilizations, expenditures, and outcomes by procedures and medical services.
x	mc201_icd_version_cd	De-Identified	MC201	ICD version code 9 - ICD-9, 10 - ICD-10	9, 10	Varchar	2		Important to analyze utilizations, expenditures, and outcomes by procedures and medical services.
x	mc061_service_qty	De-Identified	MC061	Count of services set equal to one on all observation bed service lines and set equal to zero on all other room and board service lines, regardless of the length of stay		Numeric	18		Used to measure medical utilizations.
x	mc017_paid_dt	De-Identified	MC017	Payment date	YYYYMMDD	Date	10		Important to accurately analyze, compare, and interpret expenditures.
x	mc062_charge_amt	De-Identified	MC062	Payer reported charges or billed amount for the service. 0 if amt=0, blank if missing		Numeric	18		Important to accurately analyze, compare, and interpret expenditures.
x	mc063_paid_amt	De-Identified	MC063	Payment made by payer. Does not include expected copayment, coinsurance or deductible by the member. 0 if amt=0, blank if missing		Numeric	18		Important to accurately analyze, compare, and interpret expenditures.
x	mc064_prepaid_amt	De-Identified	MC064	Prepaid amount. 0 if amt=0, blank if missing		Numeric	18		Important to accurately analyze, compare, and interpret expenditures.
x	mc065_copay_amt	De-Identified	MC065	Expected Co-payment by the member. 0 if amt=0, blank if missing		Numeric	18		Important to accurately analyze, compare, and interpret expenditures.
x	mc066_coinsurance_amt	De-Identified	MC066	Expected Co-insurance by the member. 0 if amt=0, blank if missing		Numeric	18		Important to accurately analyze, compare, and interpret expenditures.
x	mc067_deductible_amt	De-Identified	MC067	Expected Deductible by the member. 0 if amt=0, blank if missing		Numeric	18		Important to accurately analyze, compare, and interpret expenditures.
x	mc067a_patient_paid_amt	De-Identified	MC067	Expected Patient paid amount. Amount patient paid. Required if co-payment, co-insurance or deductible are missing. 0 if amt=0, blank if missing		Numeric	18		Important to accurately analyze, compare, and interpret expenditures.
x	mc206_pay_to_patient_flag	De-Identified	MC206	Payment to patient. Y- If patient was directly reimbursed, N - patient was not directy reimbursed. Converted to boolean 1=Y, 0=N.	1, 0	Boolean	1		Important to accurately analyze, compare, and interpret expenditures.
x	mc062a_allowed_amt	Limited	MC062	Allowed amount. 0 if amt=0, blank if missing		Numeric	18		Important to accurately analyze, compare, and interpret expenditures.

x	mc202_provider_network_indicator	De-Identified	MC202	Indicator of service received in or out of network:1 (in network), 2 (National network), 3 (out-of-network)	1, 2, 3	Varchar	1	Important to accurately analyze, compare, and interpret medical utilizations, expenditures, and outcomes by networks statues.
x	dw_rendering_provider_id	De-Identified		Rendering provider composite ID. A unique identifier associated with a unique rendering provider across plans and payer		Integer	19	As the main focus of this research project, this provider ID variable is important to construct patient-provider relationship across time
x	dw_billing_provider_id	De-Identified		Billing provider composite ID. A unique identifier associated with a unique billing provider across plans and payer		Integer	19	As the main focus of this research project, this provider ID variable is important to construct patient-provider relationship across time
x	rendering_hospital_id	Limited		Hospital that rendered services		Integer	19	As the main focus of this research project, this provider ID variable is important to construct patient-provider relationship at institutional level across time
x	billing_hospital_id	Limited		Hospital billed for services		Integer	19	As the main focus of this research project, this provider ID variable is important to construct patient-provider relationship at institutional level across time
x	rendering_asc_id	Limited		Ambulatory surgery center that rendered services		Integer	19	As the main focus of this research project, this provider ID variable is important to construct patient-provider relationship at institutional level across time
x	billing_asc_id	De-Identified		Ambulatory surgery center billed or services		Integer	19	As the main focus of this research project, this provider ID variable is important to construct patient-provider relationship at institutional level across time
x	age	De-Identified		Age on date of service		Integer	19	control for patient demographic characteristics
x	age_group	De-Identified		Age bands based on date of service. For example 0 = 0 to 4, 5 = 5 to 9	0, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100	Integer	19	control for patient demographic characteristics
x	yob	Limited		Year of Birth. Null If no date of birth was reported	YYYY	Integer	19	control for patient demographic characteristics
x	urban_fl	De-Identified		Zip codes grouped into urban and rural identified by OHA. Static from latest quarterly data submitted. 1 (Urban), 2 (not Urban)	1, 0	Boolean	1	https://www.ohsu.edu/oregon-office-of-rural-health/about-rural-and-frontier-data	control for patient demographic characteristics
x	me016_member_state	De-Identified	ME016	Member State from latest quarterly data submitted		Varchar	4	control for patient demographic characteristics
x	cob_outlier_fl	De-Identified		Coordination of benefits Outlier flag identifying potential aberration in MC038 claim status. 1=Y, 0=N	1, 0	Boolean	1	Used to control for benefit status.
x	claim_type	Limited		Claim type. This identifies whether it was an inpatient facility claim (1), outpatient facility claim (2), and professional claim (3). Null means it could not be determined.	1,2,3,NULL	Integer	19	Important to accurately analy utilizations, expenditures, and outcomes by clincial settings.
x	interim_fl	De-Identified		Flag identifying interim bills. 1=Y, 0=N	1, 0	Boolean	1	Important to accurately analyze long stay claims.
x	interim_claim_id	De-Identified		Unique identifier set by DW_Claim_ID of the initial interim claim		Integer	19	Important to accurately analyze long stay claims.

x	release_id	De-Identified		A value associated with the data release		Integer	19	Important for data management
x	environment_id	De-Identified		A value associated with the state the data is in 1: Production, 2: Pending, 3: Test	1, 2, 3	Integer	19	Important for data management
Data elements that are frequently denied								
	payer_cd	Sensitive		Payer name abbreviation code		Varchar	8	
	mc008_subscriber_contract_no_isv	Sensitive	MC008	Plan specific contract number, integer substituted value		Integer	19	
	me014_member_dob	Sensitive	ME014	Member date of birth	YYYYMMDD	Date	10	
	me015_member_city_nm	Limited	ME015	Member City from latest quarterly data submitted		Varchar	30	
	me015a_member_street_address_isv	Sensitive	ME015	Member street address from payer, integer substituted value		Integer	19	
x	me017_member_zip	Limited	ME017	Zip code-static from latest quarterly data submitted		Varchar	7	Used to link with other area-level datasets to control for area-level characteristics and social determinants of health
x	member_zip_three	De-Identified		First three characters of member's zip code		Varchar	10	Used to link with other area-level datasets to control for area-level characteristics and social determinants of health
	MCAID_CCO_Identifier	Sensitive		CCO identifier from Medicaid supplemental eligibility file. Not fully populated prior to 2016		Varchar	15	
	MCAID_PERC	Limited		Medicaid program eligibility codes. Not fully populated		Varchar	2	
	MCAID_SAK_CLAIM	Limited				Varchar	8	
	MCAID_Delivery_System	Limited				Varchar	1	
	MCAID_Claim_Type	Limited				Varchar	1	
Data elements that for internal use								
	release_id	De-Identified		A value associated with the data release		Integer	19	
	environment_id	De-Identified		A value associated with the state the data is in 1: Production, 2: Pending, 3: Test	1, 2, 3	Integer	19	
	SubUseDisTreat_Fl	Sensitive		Flag identifying claims lines that contain substance use treatment disorder related codes. 1=Y, 0=N	1, 0	Boolean	1	
	mc004_payer_claim_control_no	Sensitive	MC004	Claim ID		Varchar	80	
	mc010_member_id_isv	De-Identified	MC010	Member ID integer substituted value		Integer	19	
	mc024_rendering_provider_no	De-Identified	MC024	Rendering provider ID, from payer		Varchar	30	
	mc076_billing_provider_id	Limited	MC076	Payer assigned billing provider number. This number should be the identifier used by the payer for internal identification purposes, and does not routinely change		Varchar	30	
	claim_ffs_to_mco_fl	Sensitive		Fee of Service and Managed Care Organization flag. 1=Y, 0=N	1, 0	Boolean	1	

Field requested	Data Element	Security Level	DSG Code	Description	Value	Data Type	Length	Code Lookup	Justification
x	uid	De-Identified		Unique identifier on the table, acts as primary key		Integer	19		Used to construct panel data
x	pc025_claim_status_cd	De-Identified	PC025	Claim status. P - Paid, D - Denied, C - CCO encounter, E - other	P, D, C, E	Varchar	2		Important to accurately analyze medical utilization and expenditures.
x	dw_claim_id	De-Identified		A unique medical claim identifier		Integer	19		Important to calculate number of claims and link claims.
x	pc032_prescription_fill_dt	De-Identified	PC032	Prescription fill date	YYYYMMDD	Date	10		Important to analyze time trend for prescription.
x	dw_member_id	De-Identified		A unique identifier associated with a single plan and payer and assigned to all eligibility and claims records associated with a given individual for that plan/payer. An individual can have multiple member ids for a payer because they can have multiple plans.		Integer	19		Important to construct panel data and implment longitudinal analysis.
x	dw_person_id	De-Identified		A unique identifier associated with a unique individual across time, plans and payer		Integer	19		Important to construct panel data and implment longitudinal analysis.
x	pc001_payer_type	De-Identified	PC001	Payer reported payer type codes:(C) Carrier, (D) Medicaid, (G) Other government agency, (P) Pharmacy benefits manager, (T) Third-party administrator, (U) Unlicensed entity	C, D, G, P, T, U	Varchar	2		Analyze utilizations, expenditures, and outcomes by payer types
x	pc003_insurance_product_type_cd	De-Identified	PC003	A code that indicates an insurance coverage type		Varchar	8	Product Code	Analyze utilizations, expenditures, and outcomes by insurance types
x	claim_lob	De-Identified		Payer line of business: -99 = Inconsistent or Missing, 0 = Undefined, 1 = Medicare, 2= Medicaid, 3 = Commercial	-99, 0, 1,2,3	Integer	19	Product Code	Analyze utilizations, expenditures, and outcomes by payer types
x	self_insured_fl	De-Identified		Self Insured flag	1, 0	Boolean	1		Important to control for insurance status
x	dw_pharmacy_id	De-Identified		A unique identifier associated with a unique pharmacy across plans and payer		Integer	19		As the main focus of this research project, this provider ID variable is important to construct patient-provider relationship at institutional level across time
x	dw_prescribing_provider_id	De-Identified		Provider composite ID. A unique identifier associated with a unique prescribing provider across plans and payer		Integer	19		As the main focus of this research project, this provider ID variable is important to construct patient-provider relationship at institutional level across time
x	pc021_pharmacy_npi	De-Identified	PC021	Pharmacy's National Provider Identifier (NPI)		Varchar	15		As the main focus of this research project, this provider ID variable is important to construct patient-provider relationship at institutional level across time

	Variable	Status	Code	Description	Values	Type	Length	Link	Rationale
x	pc021a_pharmacy_alt_id	De-Identified	PC021	Pharmacy's alternate identifier as assigned by the payer		Varchar	30		As the main focus of this research project, this provider ID variable is important to construct patient-provider relationship at institutional level across time
x	pc020_pharmacy_name	De-Identified	PC020	Name of pharmacy		Varchar	70		As the main focus of this research project, this provider ID variable is important to construct patient-provider relationship at institutional level across time
x	pc022_pharmacy_city	De-Identified	PC022	City of pharmacy		Varchar	60		Used to link with other area-level datasets to control for area-level characteristics and social determinants of health
x	pc023_pharmacy_state	De-Identified	PC023	State of Pharmacy		Varchar	4		Used to link with other area-level datasets to control for area-level characteristics and social determinants of health
x	pc024_pharmacy_zip	De-Identified	PC024	Zip Code of Pharmacy		Varchar	7		Used to link with other area-level datasets to control for area-level characteristics and social determinants of health
x	pc048_prescribing_physician_npi	De-Identified	PC048	Identifier for the provider who prescribed the medication as assigned by the reporting entity		Varchar	15		Important to construct measures of patient-provider relationship
x	pc026_drug_cd	De-Identified	PC026	National Drug Code (NDC)		Varchar	39	https://www.fda.gov/Drugs/InformationOnDrugs/ucm142438.htm	Important to analyze drug utilizations
x	pc033_dispensed_qty	De-Identified	PC033	Quantity dispensed		Numeric	18		Important to analyze drug utilizations
x	pc028a_alt_refill_no	De-Identified	PC028	Alternate refill number		Integer	19		Important to analyze drug utilizations
x	pc034_days_supply_qty	De-Identified	PC034	Number of days that the drug will last if taken at the prescribed dose		Integer	19		Important to analyze drug utilizations
x	pc030_dispense_as_written_cd	De-Identified	PC030	Dispense as written. Indicates if drug substitution authorized		Varchar	2	https://resdac.org/cms-data/variables/dispense-written-daw-product-selection-code	Important to measure the impacts of patient-provider relationship on utilzation of generic or brand drugs
x	pc028_calc_refill_no	De-Identified	PC028	Processor's count of times prescription refilled		Integer	19		Important to analyze drug utilizations
x	pc031_compound_drug_ind	De-Identified	PC031	Indicates if it is a compound drug, 1 (no), 2 (yes), Null	1, 2	Varchar	2		Used to control for drug types
x	pc017_paid_dt	De-Identified	PC017	Prescription Payment date	YYYYMMDD	Date	10		Important to accurately analyze drug expenditures
x	pc036_paid_amt	De-Identified	PC063	Payment made by payer. Does not include expected copayment, coinsurance or deductible by the member 0 if amt=0, blank if missing		Numeric	18		Important to accurately analyze drug expenditures by payers

	Field	Classification	Code	Description	Values/Format	Type	Length	Link	Purpose
x	pc035_charge_amt	De-Identified	PC062	Payer reported charges or billed amount for the service 0 if amt=0, blank if missing		Numeric	18		Important to accurately analyze drug expenditures by payers
x	pc037_ingredient_cost_amt	De-Identified	PC037	Ingredient cost/list price 0 if amt=0, blank if missing		Numeric	18		Important to accurately analyze drug expenditures by payers
x	pc039_dispensing_fee_amt	De-Identified	PC039	Dispensing fee paid 0 if amt=0, blank if missing		Numeric	18		Important to accurately analyze drug expenditures by payers
x	pc040_copay_amt	De-Identified	PC040	Expected Co-payment by the member 0 if amt=0, blank if missing		Numeric	18		Important to accurately analyze drug expenditures by patients
x	pc041_coinsurance_amt	De-Identified	PC041	Expected Co-insurance by the member. Medcaid values are not co-insurance and should not be included 0 if amt=0, blank if missing		Numeric	18		Important to accurately analyze drug expenditures by patients
x	pc042_deductible_amt	De-Identified	PC042	Expected Deductible by the member 0 if amt=0, blank if missing		Numeric	18		Important to accurately analyze drug expenditures by patients
x	pc043_patient_pay_amt	De-Identified	PC043	Expected Patient paid amount. Amount patient paid. Required if co-payment, co-insurance or deductible are missing 0 if amt=0, blank if missing		Numeric	18		Important to accurately analyze drug expenditures by patients
x	age	De-Identified		Member age in years calculated on the first day of the month		Integer	19		control for patient demographic characteristics
x	age_group	De-Identified		Age bands based on date of service. For example 0 = 0 to 4, 5 = 5 to 9.	0, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100	Integer	19		control for patient demographic characteristics
x	me016_member_state	De-Identified	ME016	Member State from latest quarterly data submitted		Varchar	4		control for patient demographic characteristics
x	member_zip_three	De-Identified		First three characters of member's zip code		Varchar	10		Used to link with other area-level datasets to control for area-level characteristics and social determinants of health
x	urban_fl	De-Identified		Zip codes grouped into urban and rural identified by OHA. Static from latest quarterly data submitted. 1 (Urban), 0 (not Urban)	1, 0	Boolean	1	https://www.ohsu.edu/oregon-office-of-rural-health/about-rural-and-frontier-data	control for patient demographic characteristics
x	orphan_fl	Limited		Identifies orphan claim with no corresponding eligibility for the date of service. 1=Y, 0=N	1, 0	Boolean	1		Used to remove void claims
x	claim_type	Limited		Pharmacy claims are claim_type 6	6	Integer	19		Important to accurately analyze pharmacy utilizations and expenditures
x	yob	De-Identified		Year of Birth from Member_DOB field from Member DAV. If no date of birth has been reported, NULL	YYYY	Integer	19		control for patient demographic characteristics
Data elements that are frequently denied									
	payer_cd	Sensitive		Payer name abbreviation code		Varchar	8		
	me014_member_dob	Sensitive	ME014	Member date of birth	YYYYMMDD	Date	10		
	pc008_subscriber_contract_no_isv	Sensitive	PC008	Plan-specific contract number		Integer	19		
	me015a_member_street_address_isv	Sensitive	ME015	Member street address from payer, integer substituted value		Integer	19		

	me015_member_city_nm	Sensitive	ME015	Member City from latest quarterly data submitted		Varchar	30
	me017_member_zip	Limited	ME017	Zip code-static from latest quarterly data submitted		Varchar	7
x	MCAID_CCO_Identifier	Sensitive		CCO identifier from Medicaid supplemental eligibility file. Not fully populated prior to 2016		Varchar	15
	MCAID_PERC	Limited		Medicaid program eligibility codes. Not fully populated		Varchar	2
	MCAID_SAK_CLAIM	Limited				Varchar	8
	MCAID_Delivery_System	Limited				Varchar	1
	MCAID_Claim_Type	Limited				Varchar	1
Data elements for internal use or not yet available							
	release_id	De-Identified		A value associated with the data release		Integer	19
	environment_id	De-Identified		A value associated with the state the data is in 1: Production, 2: Pending, 3: Test	1, 2, 3	Integer	19
	pc010_member_id_isv	Sensitive	PC010	Member ID integer substituted value		Integer	19
	pc004_payer_claim_control_no	Sensitive	PC004	Claim ID		Varchar	30
	claim_ffs_to_mco_fl	Limited		Fee of Service and Managed Care Organization flag. 1=Y, 0=N	1, 0	Boolean	1
	orphan_prev_enroll_fl	Limited		Identifies orphan claim line with previous eligibility record. 1=Y, 0=N (Not available yet for release.)	1, 0	Boolean	1

Used to link with other area-level datasets to control for area-level characteristics and social determinants of health

Field requested	Data Element	Security Level	DSG Code	Description	Value	Data Type	Length	Code Lookup	Justification
x	uid	De-Identified		Unique identifier on the table, acts as primary key		Integer	19		Used to construct panel data for analysis
x	Month_Start	De-Identified		Date of Eligibility Record with all dates set to the first of the month	YYYYMMDD	Date	10		Used to construct panel data for analysis
x	year_Eligibility	De-Identified		Year of a member's eligibility	YYYY	Integer	19		Used to construct panel data for analysis
x	month_Eligibility	De-Identified		Month of a member's eligibility	MM	Integer	19		Used to construct panel data for analysis
x	me004a_plan_effective_dt	De-Identified	ME004	Insurance plan effective date	YYYYMMDD	Date	10		Used to construct panel data for analysis
x	me005a_plan_term_dt	De-Identified	ME005	Termination date	YYYYMMDD	Date	10		Used to construct panel data for analysis
x	dw_member_id	De-Identified		A unique identifier associated with a single plan and payer and assigned to all eligibility and claims records associated with a given individual for that plan/payer. An individual can have multiple member ids for a payer because they can have multiple plans.		Integer	19		Used to construct panel data for analysis
x	dw_person_id	De-Identified		A unique identifier associated with a unique individual across time, plans and payers		Integer	19		Used to construct panel data for analysis
x	me001_payer_type	De-Identified	ME001	Payer reported payer type codes:(C) Carrier, (D) Medicaid, (G) Other government agency, (P) Pharmacy benefits manager, (T) Third-party administrator, (U) Unlicensed entity	C, D, G, P, T, U	Varchar	2		Analyze utilizations, expenditures, and outcomes by payer types
x	me003_insurance_product_type_cd	De-Identified	ME003	A code that indicates an insurance coverage type		Varchar	6	Product Code	Analyze utilizations, expenditures, and outcomes by insurance types
x	lob	De-Identified		Payer line of business: -99 = Inconsistent or Missing, 0 = Undefined, 1 = Medicare, 2= Medicaid, 3 = Commercial	-99, 0, 1,2,3	Integer	19	Product Code	Analyze utilizations, expenditures, and outcomes by payer types
x	me009a_pebb_flag	De-Identified	ME009	Public Employees Benefit Board covered members Oregon includes out-of-state residents. 1=Y, 0=N	1, 0	Boolean	1		Important control variables for member characteristics by PEBB statues
x	me009b_oebb_flag	De-Identified	ME009	Oregon Educators Benefit Board covered members Oregon includes out-of-state residents. 1=Y, 0=N	1, 0	Boolean	1		Important control variables for member characteristics by OEBB statues
x	me018_medical_coverage_flag	De-Identified	ME018	Medical Coverage Flag not required when ME001=E. 1=Y, 0=N	1, 0	Boolean	1		Important control variables for member characteristics by coverage statues
x	me201_medicare_coverage_flag	De-Identified	ME201	Type of Medicare coverage for Medicaid members only. A - Part A, B - Part B, AB - Parts A and B, C - Part C, D - Part D, CD - Part C and D, X - other, Z - none, not required when ME001=E	A, B, AB, C, D, CD, X, Z	Varchar	4		Important control variables for member characteristics by coverage statues
x	me009c_medical_home_flag	De-Identified	ME009	Flag indicates medical home 1 - medical home plan 0 - other	1, 0	Boolean	1		Important control variables for member characteristics by medical home
x	me012_member_subscriber_rlp_cd	De-Identified	ME012	Relationship code		Char	2	Source Relation	Important control variables for member demographic characteristics by relationship
x	me013_member_gender_cd	De-Identified	ME013	Member Gender:M (male), F (female), and U (unknown)	M, F, U	Varchar	2		Important control variables for member demographic characteristics by gender
x	yob	De-Identified		Year of Birth from Member_DOB field from Member DAV. If no date of birth has been reported, NULL	YYYY	Integer	19		Important control variables for member demographic characteristics by age
x	age	De-Identified		Member age in years calculated on the first day of the month		Integer	19		Important control variables for member demographic characteristics by age
x	age_group	De-Identified		Age bands based on date of service. For example 0 = 0 to 4, 5 = 5 to 9.	0, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100	Integer	19		Important control variables for member demographic characteristics by age
x	me016_member_state	De-Identified	ME016	Member State from latest quarterly data submitted		Varchar	4		Important control variables for member demographic characteristics by member state

	Name	Classification	ME Code	Description	Values	Type	Length	Link	Notes
x	member_zip_three	De-Identified		First three characters of member's zip code		Varchar	10		Used to link with other area-level datasets to control for area-level characteristics and social determinants of health
x	me019_prescription_drug_coverage_flag	De-Identified	ME019	Prescription Drug coverage flag. 1=Y, 0=N	1, 0	Boolean	1		Important control variables for member characteristics by coverage statues
x	me207_dental_coverage_flag	De-Identified	ME207	Submitted as Flag indicates dental coverage for the month Y - had dental coverage N - did not have dental coverage. Converted to boolean 1=Y, 0=N.	1, 0	Boolean	1		Important control variables for member characteristics by coverage statues
x	me009d_omip_flag	De-Identified	ME009	OMIP flag. 1 - OMIP member 0 - other	1, 0	Boolean	1		Important control variables for member characteristics by coverage statues
x	me009e_hkc_flag	De-Identified	ME009	HKC flag. 1 - Healthy Kids Connect Plan 0 - other	1, 0	Boolean	1		Important control variables for member characteristics by coverage statues
x	me202_market_segment_cd	De-Identified	ME202	Market Segment		Varchar	4	Market	Important control variables for market characteristics
x	me203_metal_tier	De-Identified	ME203	Health benefit plan metal tier for qualified health plans (QHPs) and catastrophic plans as defined in the ACA:0 (Not a QHP or catastrophic plan), 1 (catastrophic), 2 (bronze), 3 (silver), 4 (gold), 5 (platinum)	0, 1, 2, 3, 4, 5	Varchar	2		Important control variables for member characteristics by coverage tiers
x	me205_high_deductible_health_flag	De-Identified	ME205	High Deductible Health Plan Flag, 1=Y, 0=N	1, 0	Boolean	1		Important control variables for member characteristics by coverage statues
x	me206_primary_insurance_ind	De-Identified	ME206	Submited as Y (primary), N (secondary or tertiary).Default to Y If unknown. Converted to boolean 1=Y, 0=N.	1, 0	Boolean	1		Important control variables for member characteristics by coverage statues
x	urban_fl	De-Identified		Zip codes grouped into urban and rural identified by OHA. Static from latest quarterly data submitted. 1 (Urban), 0 (not Urban)	1, 0	Boolean	1	https://www.ohsu.edu/oregon-office-of-rural-health/about-rural-and-frontier-data	Important control variables for member characteristics by geographic location
Data elements that are frequently denied									
	payer_cd	Sensitive		Payer name abbreviation code		Varchar	8	TBD	
	me014_member_dob	Sensitive	ME014	Member date of birth	YYYYMMDD	Date	10		
	me015a_member_street_address_isv	Sensitive	ME015	Member's street address integer substituted value		Integer	19		
x	me015_member_city_nm	Limited	ME015	Member City from latest quarterly data submitted		Varchar	30		Used to link with other area-level datasets to control for area-level characteristics and social determinants of health
x	me017_member_zip	Limited	ME017	Zip code-static from latest quarterly data submitted		Varchar	7		Used to link with other area-level datasets to control for area-level characteristics and social determinants of health
	me101_subscriber_last_nm	Sensitive	ME101	Subscriber last name		Integer	19		
	me102_subscriber_first_nm	Sensitive	ME102	Subscriber first name		Integer	19		
	me103_subscriber_middle_nm	Sensitive	ME103	Subscriber middle name		Integer	19		
	me104_member_last_nm	Sensitive	ME104	Member last name		Integer	19		
	me105_member_first_nm	Sensitive	ME105	Member first name		Integer	19		
	me106_member_middle_nm	Sensitive	ME106	Member middle name		Integer	19		
	me204_hios_plan_id	Sensitive	ME204	Health Insurance Oversight System ID. required for qualified health plans (QHPs) defined in the ACA		Varchar	14		
Data elements for internal use or not yet available									
	me007_subscriber_id_isv	Sensitive	ME007	Subscriber ID integer substituted value		Integer	19		
	me009_subscriber_contract_no_isv	Sensitive	ME009	Plan specific contract number integer substituted value		Integer	19		
	me010_member_id_isv	Sensitive	ME010	Member ID integer substituted value		Integer	19		
	medicare_fl	Limited		Record reported by CMS. 1=Y, 0=N	1, 0	Boolean	1		
	start_date_proximity	Sensitive		Distance between Month_start and file's start date		Float	15		
	end_date_proximity	Sensitive		Distance between Month_Start and file's end date		Float	15		

Field requested	Data Element	Security Level	DSG Code	Description	Value	Data Type	Length	Code Lookup	Justification
x	release_id	De-Identified		A value associated with the data release		Integer	19		Used for data management
x	environment_id	De-Identified		A value associated with the state the data is in 1: Production, 2: Pending, 3: Test	1, 2, 3	Integer	19		Used for data management
x	dw_provider_id	De-Identified		Provider composite ID. A unique identifier associated with a unique provider across plans and payers. Most of the time this uniquely maps to a single NPI.		Integer	19		As the main focus of this research project is to study the impacts of on-going provider-patient relationship, the provider composite data are important to accurately manage and analyze providers's data across time
x	provider_entity	De-Identified	MP003	F – FacilityG – Provider groupI – IPAP - Practitioner		Integer	19		Important control variable for provider characteristics by entity type.
x	national_provider_id	De-Identified	MP018	National Provider Identifier (NPI). (SOURCE: National Plan and Provider Enumeration System (NPPES))		Varchar	10	https://download.cms.gov/nppes/NPI_Files.html	As the main focus of this research project is to study the impacts of on-going provider-patient relationship, the provider composite data are important to accurately manage and analyze providers's data across time
x	provider_dea_no	De-Identified	MP013	Provide Drug Enforcement Agency (DEA) registry number		Varchar	12		As the main focus of this research project is to study the impacts of on-going provider-patient relationship, the provider composite data are important to accurately manage and analyze providers's data across time
x	provider_tax_id	De-Identified	MP002	Provider Tax identifier (attending, billing, pharmacy)		Varchar	10		As the main focus of this research project is to study the impacts of on-going provider-patient relationship, the provider composite data are important to accurately manage and analyze providers's data across time
x	medicare_provider_id	De-Identified		A unique Medicare provider identifier.		Varchar	30		As the main focus of this research project is to study the impacts of on-going provider-patient relationship, the provider composite data are important to accurately manage and analyze providers's data across time
x	medicaid_facility_number	De-Identified		Medicaid facility number.		Varchar	30		As the main focus of this research project is to study the impacts of on-going provider-patient relationship, the provider composite data are important to accurately manage and analyze providers's data across time
	provider_dob	Sensitive		Provider date of birth	YYYYMMDD	Date	10		
	provider_dob_month	Sensitive		Month of birth based on provider_dob	MM	Integer	19		
	provider_dob_day	Sensitive		Day of birth based on provider_dob	DD	Integer	19		
x	provider_dob_year	De-Identified		Year of birth based on provider_dob	YYYY	Integer	19		Important control variable for provider demographic characteristics by age
x	license_1	De-Identified		Provider state license code number 1		Varchar	20		Important control variable for provider characteristics by license state
x	license_state_1	De-Identified		State where provider license number 1 was granted		Varchar	2		Important control variable for provider characteristics by license state

x	license_2	De-Identified		Provider state license code number 2		Varchar	20	Important control variable for provider characteristics by license state
x	license_state_2	De-Identified		State where provider license number 2 was granted		Varchar	2	Important control variable for provider characteristics by license state
x	license_3	De-Identified		Provider state license code number 3		Varchar	20	Important control variable for provider characteristics by license state
x	license_state_3	De-Identified		State where provider license number 3 was granted		Varchar	2	Important control variable for provider characteristics by license state
x	license_4	De-Identified		Provider state license code number 4		Varchar	20	Important control variable for provider characteristics by license state
x	license_state_4	De-Identified		State where provider license number 4 was granted		Varchar	2	Important control variable for provider characteristics by license state
x	license_5	De-Identified		Provider state license code number 5		Varchar	20	Important control variable for provider characteristics by license state
x	license_state_5	De-Identified		State where provider license number 5 was granted		Varchar	2	Important control variable for provider characteristics by license state
x	Provider_First_Nm	De-Identified	MP006	Provider first name; null if provider is an organization entity (attending, billing, pharmacy)		Varchar	35	Important to use to differentiate individual and organzational providers
x	Provider_Middle_Nm	De-Identified	MP007	Provider middle name or organization name (attending, billing, pharmacy)		Varchar	35	Important to use to differentiate individual and organzational providers
x	Provider_Last_Nm	De-Identified	MP008	Provider last name or organization name (attending, billing, pharmacy)		Varchar	60	Important to use to differentiate individual and organzational providers
	Provider_Suffix	De-Identified		Suffix of provider name		Varchar	10	
x	Provider_Org_Nm	De-Identified		Name of provider's organization		Varchar	60	Important to use to construct measures for patients-provider (organization) relationship.
	Provider_Prefix	De-Identified		Prefix of provider name		Varchar	10	
x	Provider_Org_Nm_Other	De-Identified		Other name of organization		Varchar	140	Important to use to construct measures for patients-provider (organization) relationship.
	Provider_Last_Nm_Other	De-Identified		Other last name of provider		Varchar	70	
	Provider_First_Nm_Other	De-Identified		Other first name of provider		Varchar	40	
	Provider_Middle_Nm_Other	De-Identified		Other middle name of provider		Varchar	40	
	Provider_Prefix_Other	De-Identified		Other prefix of provider		Varchar	10	
	Provider_Suffix_Other	De-Identified		Other suffix of provider		Varchar	10	
	primary_street	De-Identified		Provider street address (attending, billing, pharmacy)		Varchar	111	
x	primary_city	De-Identified	MP011	Provider city (attending, billing, pharmacy)		Varchar	60	Used to link with other area-level datasets to control for area-level characteristics and social determinants of health
x	primary_state	De-Identified	MP012	Provider state (attending, billing, pharmacy)		Char	2	Used to link with other area-level datasets to control for area-level characteristics and social determinants of health
x	primary_zip	De-Identified	MP013	Provider location zip (attending, billing, pharmacy)		Varchar	9	Used to link with other area-level datasets to control for area-level characteristics and social determinants of health
x	Credential_Text_1	De-Identified		Provider NPI credential 1		Varchar	20	https://download.cms.gov/nppes/NPI_Files.html Important control variables for provider characteristics by provider credentials

	Field			Description	Values	Type	Length	Reference	Notes
x	Credential_Text_2	De-Identified		Provider NPI credential 2		Varchar	20	https://download.cms.gov/nppes/NPI_Files.html	Important control variables for provider characteristics by provider credentials
x	Credential_Text_3	De-Identified		Provider NPI credential 3		Varchar	20	https://download.cms.gov/nppes/NPI_Files.html	Important control variables for provider characteristics by provider credentials
x	provider_gender	De-Identified		Gender of provider - U if unknown	M,F, U	Char	1		Important control variables for provider characteristics by gender
x	Taxonomy_Cd_1	De-Identified		NUCC provider taxonomy for the billing provider; NPI if not reported		Varchar	10	https://www.nucc.org/index.php/code-sets-mainmenu-41/provider-taxonomy-mainmenu-40/csv-mainmenu-57	Important control variables for provider classification and specialization
x	Taxonomy_Cd_2	De-Identified		NUCC provider taxonomy for the billing provider; NPI if not reported		Varchar	10	https://www.nucc.org/index.php/code-sets-mainmenu-41/provider-taxonomy-mainmenu-40/csv-mainmenu-57	Important control variables for provider classification and specialization
x	Taxonomy_Cd_3	De-Identified		NUCC provider taxonomy for the billing provider; NPI if not reported		Varchar	10	https://www.nucc.org/index.php/code-sets-mainmenu-41/provider-taxonomy-mainmenu-40/csv-mainmenu-57	Important control variables for provider classification and specialization
x	Taxonomy_Cd_4	De-Identified		NUCC provider taxonomy for the billing provider; NPI if not reported		Varchar	10	https://www.nucc.org/index.php/code-sets-mainmenu-41/provider-taxonomy-mainmenu-40/csv-mainmenu-57	Important control variables for provider classification and specialization
x	Taxonomy_Cd_5	De-Identified		NUCC provider taxonomy for the billing provider; NPI if not reported		Varchar	10	https://www.nucc.org/index.php/code-sets-mainmenu-41/provider-taxonomy-mainmenu-40/csv-mainmenu-57	Important control variables for provider classification and specialization
x	release_id	De-Identified		A value associated with the data release		Integer	19		Used for data management
x	environment_id	De-Identified		A value associated with the state the data is in 1: Production, 2: Pending, 3: Test	1, 2, 3	Integer	19		Used for data management
x	dw_provider_id	De-Identified		Unique identifier for provider		Integer	19		As the main focus of this research project is to study the impacts of on-going provider-patient relationship, the provider composite data are important to accurately manage and analyze providers's data across time
x	Provider_Composite_Address_ID	De-Identified		A unique provider address identifier.		Integer	19		As the main focus of this research project is to study the impacts of on-going provider-patient relationship, the provider composite data are important to accurately manage and analyze providers's data across time
x	Addr_Type	De-Identified		Address type of provider. Designates B - Business, L - Location, S - Secondary Location, I - Provider Index	B, L, S, I	Varchar	1		Important control variables for provider characteristics by address types

	Addr_Street_1	De-Identified		Address of provider	Varchar	110
	Addr_Street_2	De-Identified		Address 2 of provider	Varchar	110
x	Addr_City	De-Identified		City of Provider	Varchar	80	Used to link with other area-level datasets to control for area-level characteristics and social determinants of health
x	Addr_State	De-Identified		State of provider	Varchar	40	Used to link with other area-level datasets to control for area-level characteristics and social determinants of health
x	Addr_ZIP	De-Identified		ZIP Code of provider - may include non-US codes	Varchar	20	Used to link with other area-level datasets to control for area-level characteristics and social determinants of health
x	Zip_Cd_3_Digit	De-Identified		ZIP Code of provider - may include non-US codes. Do not include dash. 3-digit	Varchar	12	Used to link with other area-level datasets to control for area-level characteristics and social determinants of health
	Latitude	De-Identified		Longitude location of provider	Numeric	9
	Longitude	De-Identified		Longitude location of provider	Numeric	9

ICD-10 diagnosis codes

G43001	G44011	M25529	M549	M5186	F1113
G43009	G44019	M25531	M791	M5187	F1114
G43011	G44021	M25532	M7910	M532X6	F11150
G43019	G44029	M25539	M7911	M532X7	F11151
G43101	G44031	M25541	M7912	M532X8	F11159
G43109	G44039	M25542	M7918	M533	F11181
G43111	G44041	M25549	M79601	M5386	F11182
G43119	G44049	M25551	M79602	M5387	F11188
G43401	G44051	M25552	M79603	M5388	F1119
G43409	G44059	M25559	M79604	M5416	F1120
G43411	G44091	M25561	M79605	M5417	F11220
G43419	G44099	M25562	M79606	M5418	F11221
G43501	G441	M25569	M79609	M5430	F11222
G43509	G44201	M25571	M79621	M5431	F11229
G43511	G44209	M25572	M79622	M5432	F1123
G43519	G44211	M25579	M79629	M5440	F1124
G43601	G44219	M2559	M79631	M5441	F11250
G43609	G44221	M2560	M79632	M5442	F11251
G43611	G44229	M25611	M79639	M545	F11259
G43619	G44301	M25612	M79641	M62830	F11281
G43701	G44309	M25619	M79642	G890	F11282
G43709	G44311	M25621	M79643	G8911	F11288
G43711	G44319	M25622	M79644	G8912	F1129
G43719	G44321	M25629	M79645	G8918	F1190
G43801	G44329	M25631	M79646	G8921	F11920
G43809	G4440	M25632	M79651	G8922	F11921
G43811	G4441	M25639	M79652	G8928	F11922
G43819	G4451	M25641	M79659	G8929	F11929
G43821	G4452	M25642	M79661	G893	F1193
G43829	G4453	M25649	M79662	G894	F1194
G43831	G4459	M25651	M79669	G902	F11950
G43839	G4481	M25652	M79671	G9050	F11951
G43901	G4482	M25659	M79672	G90511	F11959
G43909	G4483	M25661	M79673	G90512	F11981
G43911	G4484	M25662	M79674	G90513	F11982
G43919	G4485	M25669	M79675	G90519	F11988
G43A0	G4489	M25671	M79676	G90521	F1199
G43A1	R51	M25672	M5106	G90522	T400X1A
G43B0	R510	M25673	M5116	G90523	T400X2A
G43B1	R519	M25674	M5117	G90529	T400X3A
G43C0	M2550	M25675	M5126	G9059	T400X4A
G43C1	M25511	M25676	M5127	F1110	T400X5A
G43D0	M25512	M2569	M5136	F11120	T401X1A
G43D1	M25519	M546	M5137	F11121	T401X2A
G44001	M25521	M5481	M5146	F11122	T401X3A
G44009	M25522	M5489	M5147	F11129	T401X4A

T402X1A	T401X2D	F13129	F1397	F1423	F1524	T43633A
T402X2A	T401X3D	F13130	F13980	F1424	F15250	T43634A
T402X3A	T401X4D	F13131	F13981	F14250	F15251	T43635A
T402X4A	T402X1D	F13132	F13982	F14251	F15259	T43641A
T402X5A	T402X2D	F13139	F13988	F14259	F15280	T43642A
T403X1A	T402X3D	F1314	F1399	F14280	F15281	T43643A
T403X2A	T402X4D	F13150	T426X1A	F14281	F15282	T43644A
T403X3A	T402X5D	F13151	T426X2A	F14282	F15288	T43691A
T403X4A	T403X1D	F13159	T426X3A	F14288	F1529	T43692A
T403X5A	T403X2D	F13180	T426X4A	F1429	F1590	T43693A
T40411A	T403X3D	F13181	T426X5A	F1490	F15920	T43694A
T40412A	T403X4D	F13182	T4271XA	F14920	F15921	T43695A
T40413A	T403X5D	F13188	T4272XA	F14921	F15922	T405X1D
T40414A	T40411D	F1319	T4273XA	F14922	F15929	T405X2D
T40415A	T40412D	F1320	T4274XA	F14929	F1593	T405X3D
T40421D	T40413D	F13220	T4275XA	F1493	F1594	T405X4D
T40422A	T40414D	F13221	T426X1D	F1494	F15950	T405X5D
T40423A	T40415D	F13229	T426X2D	F14950	F15951	T43601D
T40424A	T40421D	F13230	T426X3D	F14951	F15959	T43602D
T40425A	T40422D	F13231	T426X4D	F14959	F15980	T43603D
T40491A	T40423D	F13232	T426X5D	F14980	F15981	T43604D
T40492A	T40424D	F13239	T4271XD	F14981	F15982	T43605D
T40493A	T40425D	F1324	T4272XD	F14982	F15988	T43611D
T40494A	T40491D	F13250	T4273XD	F14988	F1599	T43612D
T40495A	T40492D	F13251	T4274XD	F1499	T405X1A	T43613D
T404X1A	T40493D	F13259	T4275XD	F1510	T405X2A	T43614D
T404X2A	T40494D	F1326	F1410	F15120	T405X3A	T43615D
T404X3A	T40495D	F1327	F14120	F15121	T405X4A	T43621D
T404X4A	T404X1D	F13280	F14121	F15122	T405X5A	T43622D
T404X5A	T404X2D	F13281	F14122	F15129	T43601A	T43623D
T40601A	T404X3D	F13282	F14129	F1513	T43602A	T43624D
T40602A	T404X4D	F13288	F1413	F1514	T43603A	T43625D
T40603A	T404X5D	F1329	F1414	F15150	T43604A	T43631D
T40604A	T40601D	F1390	F14150	F15151	T43605A	T43632D
T40605A	T40602D	F13920	F14151	F15159	T43611A	T43633D
T40691A	T40603D	F13921	F14159	F15180	T43612A	T43634D
T40692A	T40604D	F13929	F14180	F15181	T43613A	T43635D
T40693A	T40605D	F13930	F14181	F15182	T43614A	T43641D
T40694A	T40691D	F13931	F14182	F15188	T43615A	T43642D
T40695A	T40692D	F13932	F14188	F1519	T43621A	T43643D
T400X1D	T40693D	F13939	F1419	F1520	T43622A	T43644D
T400X2D	T40694D	F1394	F1420	F15220	T43623A	T43691D
T400X3D	T40695D	F13950	F14220	F15221	T43624A	T43692D
T400X4D	F1310	F13951	F14221	F15222	T43625A	T43693D
T400X5D	F13120	F13959	F14222	F15229	T43631A	T43694D
T401X1D	F13121	F1396	F14229	F1523	T43632A	T43695D

New or Amended APAC Data Request Review (custom or OHA Business Associate)
Staff Reviewer: Mary Ann Evans
DRTS Number: 5545
Date review completed: 7/22/21

	Yes	No	N/A	Need more information
Is this a new APAC request?	x			
New APAC Request (skip to next section if amendment request):				
1.1 Project staff contact information provided	x			
1.2 Project technical staff information provided			x	Only the requester
2.1 Project summary provided with adequate detail to identify a specific unambiguous project	x			
2.2 Research questions provided with adequate detail	x			
2.3 Described planned products and reports derived from requested data	x			
2.4 Project begin and end date provided	x			
2.5 Acknowledgement that APAC data cannot be reused beyond the DUA	x			
2.5 Acknowledgement that data cannot be shared beyond the DUA	x			
3.1ab Data request purpose box checked & description	x			
3.2 Checked box for level of data identifiers	x			
3.3 IRB application, approval memo, end date	x			
4.1 Completed data elements workbook	x			Limited to specific diagnosis codes
4.2 Adequately described how the data elements requested are the minimum necessary	x			
5.1 Plan provided to prevent re-identification	x			
5.2ab Plan to link APAC data to other data source	x			
5.2c Requests OHA to link APAC to other data	x			Zip codes used to link to Census for SDOH data
5.2d Detailed data linking plan provided	x			Requester will not receive zip code data
5.3 Provided adequate description of data management, security and data destruction plan	x			
Passes Minimum Necessary Review	x			
Recommend management approval	x			
Amendment request for previously approved APAC request (not needed for staff change only):				
Any new data elements requested				
Any new years of data requested				
Any new project purpose or research questions				
Description of new project purpose				
Completed data elements workbook				
IRB application and approval memo				
Passes Minimum Necessary Review				
Recommend management approval				